

REMARKS

Claims 2, 4-14 and 19-23 are pending. By this Amendment, claim 1 and 3 are cancelled, claims 2, 4-12, and 19-22 are amended and new claim 23 is added.

The Examiner rejects claims 1-6, 8, 9, 11-14 and 19 under 35 U.S.C. §102(b) over U.S. Patent No. 6,602,472 to Zimmermann et al.; rejects claims 7 and 20-22 under 35 U.S.C. §103(a) over Zimmermann and rejects claim 10 under 35 U.S.C. §103(a) over Zimmermann in view of U.S. Patent No. 6,633,031 to Shultz. These rejections are respectfully traversed.

Applicants' new independent claim 23 is directed to an electrospray source having a structure comprising a support having a main face. A wafer is formed on the main face of the support and integral with the main face of the support. A part of the wafer constituting at least one flat and thin tip is cantilevered with respect to the support. The tip is provided with a capillary slot formed through a complete thickness of the tip. The thickness is substantially orthogonal to the main face of the support. The capillary slot leads to an end of the tip to form an ejection orifice of the electrospray source. The electrospray source includes means for supplying the capillary slot with liquid to be nebulized and means for applying an electrospray voltage to the liquid.

Applicants' independent claim 11 is directed to a method of manufacturing a structure that is an electrospray source comprising, the formation of a support from a substrate. The support has a main face. The formation of a wafer having a part constituting a flat and thin tip, the tip being provided with a capillary slot, to convey a liquid to be nebulised, formed in the complete thickness of the tip and which ends up at the end of the tip. The wafer is made integral on main face of the support and the

tip is cantilevered along a plane in relation to the support. The thickness is substantially orthogonal to the plane.

Such features encompass Applicants' exemplary embodiment as illustrated in Fig. 1A wherein the electric spray source includes a support 1 and a wafer 2 integral with the support 1. A part of the wafer 2 forms a tip 3 cantilevered along a plane in relation to the support 1. The wafer includes in its center a recess 4 constituting a reservoir. A capillary slot 5 connects the reservoir 4 to the end 6 of the tip 3. As shown in Fig. 2 the capillary slot 5 is formed through the complete thickness of the tip 3 orthogonal to the plane. As described in Applicants' as-filed specification at page 40, a surface of the substrate 10 is covered with a layer of a material intended to constitute the wafer of the structure. The above description from the specification does not limit Applicants' claims.

In contrast, the Zimmermann patent discloses a microchip 50 having a microspray tip 57 including a hand 56. Microchip 50 includes a drawing-in tube 51. Sample reservoirs 52 open into a channel 53 which in turn has a substance conveying connection the to drawing-in tube 51. Zimmerman does not disclose an electrospray source having a structure including a support having a main face and a wafer formed on the main face of the support as in Applicants' new independent claim 23.

Applicants' independent claim 11 is distinguishable over Zimmermann for reasons similar to those discussed above with respect to independent claim 1.

The Shultz patent does not overcome the deficiencies of the Zimmermann patent noted above.

The dependent claims are distinguishable over the cited references for at least the reasons discussed above as well as for the individual features they recite.

Prompt and favorable examination on the merits is respectfully requested.

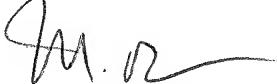
Should the Examiner have any questions regarding this Amendment or the application in general, he is invited to contact the undersigned at the number provided below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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